NEW ENGLAND FARMER.

Published by JOHN B. RUSSELL, *at No. 52 North Market Street, (at the Agricultural Warehouse).*—THOMAS G. FESSENDEN, *Editor.*

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ORIGINAL COMMUNICATIONS.

FOR THE NEW ENGLAND FARMER.

GUARD AGAINST THE CANKER WORM.

MR FESSENDEN—Among the many expedients adopted to prevent the ascent of the Canker worm, encircling the trees with tins so formed as to contain a liquid through which the insect must travel, is, without doubt, the most certain, and, at the same time, all things considered, the most economical. Mr IRISH, of Rhode Island, it is believed, was the first who made use of tins; a notice of which may be seen by referring to the New England Farmer, vol. v. page 409.

The tins of Mr IRISH, it is understood, were nicely adjusted or fitted to the shape of the tree, being nailed to it, and were effectual for the time, entirely preventing the ascent of the grub. Mr HOUGHTON'S method, of Lynn, as detailed in the New England Farmer, vol. vii. page 94, is very ingenious, and agrees, it is conceived, in every particular, with that of Mr IRISH, if we except the material of which it is constructed, Mr HOUGHTON'S being "made of strong pasteboard, painted, and made impervious to the water." It must be evident, from the form of their construction, they must both fail in a year, or two at most, on account of the growth of the tree to which they are attached, and therefore become ineffectual.

It is a known fact, that the bodies of all trees increase in size in a greater or less degree, as they are more or less flourishing. Tins, pasteboard, or wooden belts, nicely adjusted to the tree, as some have recommended, (which in all cases cannot well be done, on account of inequalities or ridges,) will, in a short time, cease to be an effectual barrier to the ascent of the Canker worm. The method I am about to propose is not liable to these objections. I herewith send you one for public inspection. It is formed of tin, (the cheaper or poorer qualities of this article will answer the purpose for its construction.) It is of a square form, and ought to be made at least two inches larger every way than the tree to which it is to be attached. But to be a little more particular, as all may not see this model. Four pieces of tin plate, 2½ to 3 inches wide, of a desired length, are doubled, so as to form a trough one and a quarter to one and a half inches deep, and from one and a quarter to one and a half inches broad at the top. The four pieces are to be soldered together at their extremities, except one corner, which is to be left open or slightly tacked. To this, four pieces of tin about two inches in width are to be soldered, so as to form a cover set up from, and projecting over the trough an inch or more, the corresponding corner to be left open.

When it is to be applied to the tree, the unfastened corner is to be separated, one part raised and the other depressed, and thus put around the body of the tree. The trough part, if not the cover, is now to be soldered so as to be water tight. Two narrow strips of board are to be horizontally nailed to the tree, parallel to each other under the tins, a sufficient distance from the ground to be out of the way of swine, &c, that may be suffered to run in the orchard. Should the trees be large, small strips of lathes or shingles may be placed across the ends, to keep the tins more steady. The interval between the tree and the tins must now be carefully filled with swingling tow, on which some small stones may be placed to keep the whole in its place.

All that remains to be done, is, to fill the trough half or two thirds full of water, and to this add a small quantity of common whale oil, of the thinnest quality. It is not certain but water alone will be sufficient to so enfeeble them as to prevent their more difficult ascent after they have got through it, but it is certain that the least contact of their bodies to oil, at once kills them; and in the fall, in particular, it is found always in a proper state to impede their progress, when the temperature of the weather favors their ascent. It is very probable that a decoction of tobacco leaves or stems would answer the purpose, where whale oil cannot readily be obtained. Mr E. GIFFORD, of this town, was the first who adopted this plan, and it has been in operation two or three years, and such has been the success attending it, as to silence the most skeptical. One gentleman, having a young orchard in this town of 350 trees (averaging 7 inches in diameter) for a few years, in a bearing state, found last spring, that they were attacked with the Canker worm. In the month of October last he had them all tinned in the manner I have described. He informs me that the whole expense for the 350 trees will not be far from $75, a little exceeding 21 cents each. I have examined said orchard since it was tinned, and was truly astonished at the destruction of Canker worms. Not one, it is confidently believed, has gone up the trees since said operation. Now should we reckon the cost of tar, the labor and time spent in the fall, through the frequent thaws of the winter, in which they have been known to go up, and until late in the spring, when they have done running, I think the expense cannot be less than above mentioned. And should we further consider, that the most wary farmer may inadvertently neglect to tar some time, or, as has been the case, when he was sure of success, he has found in the spring that many, far too many, had deposited their eggs beneath the tar, under the crevices of the bark, or on the grass or small twigs or shoots near the tree, and their young progeny are seen, when too late, travelling up, and thus all his hopes are blighted, and he has in the ensuing autumn, to go through his labor again. Now should the expense of tinning, oil, &c, be thirtyseven and a half cents a tree, (the most, it is thought, it would cost for the largest,) still the farmer will be amply compensated. Besides, after the tins have remained on the trees say two or three years, they may be taken off, and laid up in a dry place, against time of need, or may become an article of traffic. Perhaps it would be well to paint them in the first instance. The whole is submitted to a candid public.

LEMUEL W. BRIGGS.

Bristol, R. I. Jan. 15, 1830.

☞The model alluded to above, is left in the Hall of the Massachusetts Horticultural Society, No. 52, North Market-street, where it may be inspected by any person who has a wish to view a simple, but we believe effectual safeguard against an odious and destructive insect.

FOR THE NEW ENGLAND FARMER.

POTATOES.—QUERY.

MR FESSENDEN—Will you, or some of your correspondents, inform me at what time potatoes were first introduced into any part of New England? In Gov. WINTHROP'S Journal, I find mention made of "potatoes," but these were undoubtedly *sweet* potatoes. Dr BELKNAP, in his *History of New Hampshire*, states, that the first potatoes ever raised in New England, grew in the garden of NATHANIEL WALKER of Andover, in 1719. Tradition asserts that they were raised in Lynn as early as 1717 or '18. It is certain that the Rev. JOHN TUFTS of Newbury, cultivated them in 1723, and it is said that a few were raised on the Indian Hill farm in Newbury, in 1717. In 1735 they were introduced from Salem into Chebacco parish, (now Essex,) but at what time they were introduced into Salem, I know not. Very few, however, were raised in New England, till many years after. In a letter written by Capt. CORWIN, who, with his company, spent the winter at Louisburg, in 1745, after the siege and reduction of that place, he expresses a wish among other articles, to have one "*peck of potatoes*" sent to him. Being a great lover of potatoes, I fully appreciate the idea advanced in your New Year's Address, that "good *potatoes* make good *men*," and should be highly gratified to know at how *early* a date it can be satisfactorily proved that potatoes formed any part of the diet of a Yankee. WOOD, in his *New England's Prospect*, mentions "Turnips, Parsnips, Carrots, Radishes, Pompions, Muskmillions, Squonterquoshes,* Cucumbers, and Onyons," as cultivated in New England before the year 1634.

It is said potatoes were introduced into Ireland by Sir FRANCIS DRAKE, in 1610. SHAKSPEARE, who died 1616, has this expression in the 5th act of the *Merry Wives of Windsor*:—"Let the sky rain *Potatoes*; let it thunder to the tune of *Green Sleeves*; hail, kissing comfits and snow eringoes."

Yours, &c. INQUIRER.

FOR THE NEW ENGLAND FARMER.

ANNUAL FLOWERS.

Cultivators of these plants, some of which are very splendid, do not sufficiently regard the effect which may be produced upon the size of the plant and the beauty of its bloom by retarding the protrusion of the flower stalk. This may be accomplished by sowing early in the season, as in March, in pots of a very small size, filled with rich compost, shifting every week or ten days into pots a size larger every time, until at last the plants are in pots of the largest size; the object being, not to compress the roots, as that has a tendency to accellerate the flowering of all vegetables, but to keep the plant in a vigorous growing state for the longest period of time possible. The pots should be kept all the time in a hot bed or pit, plunged, with abundance of room and air, in a heat of 80

[*What, in the name of Heliogobalus, were these?]

to 100 degrees, and plentifully supplied with manured water. It was in this way that the Dutch gardeners produced those monstrous specimens of *campanula pyramidalis*, which, before the importation of *Lobelia fulgens* and *splendens*, were the common ornaments of the halls, stair cases, and fire places of Holland, but which, since the introduction of these beautiful American plants, have given way to a better taste. FAIRWEATHER, (London Horticultural Transactions page 406,) by transplanting only three or four times, produced balsams *(impatiens balsamina,)* four feet high and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these covered with large double flowers. And KNIGHT (Horticultural Transactions iv. 322) by transplanting from pots of four inches in diameter, into others a foot in diameter, placing the plants close to the glass, in a heat of seventy to one hundred degrees, taking care to remove all side branches, and to give abundant supplies of pigeon-dung water, produced a flower of the popular Japan annual *celosia cristata*, (cockscomb) which was sent to the Horticultural society, where it was measured and found to be eighteen inches in width, and seven inches in height from the top of the flower stalk, thick, full, and of the most intense purplish red. Many species of amaranthaceæ are very ornamental and deserve attention in their culture, as that popularly known by the name of Love-lies-bleeding, *(amaranthus caudatus,)* which, with its long tail-like pendant masses of crimson flowers, has a fine appearance. The climate of the United States, if not so well suited to the cultivation of these plants, as that of India, of which country the most beautiful are natives, is superior to that of England, and, perhaps, quite as favorable as that of Japan, where THUNBERG says he has frequently seen the flowers or crests of *celosia cristata*, a foot in length and breadth. In England they are often cultivated in pots with singular effect. In the Gardener's Magazine for October, 1829, Mr LOUDON says, "In the vinery [of Petworth House] we observed sixty pots of cockscombs of uniform size, the comb about twenty two inches in length, and the height of the flower not more than ten inches. The art of raising them with such large combs on so short stems, Mr HARRISON says, is, after transplanting them for the first time out of the seed pot, to let them remain in a small sized pot till the comb has made its appearance, and then, and not before, to begin to transplant, as in the case of balsams, into larger pots, and thus supply as much rich earth, liquid manure, and moist heat, as they can make use of. The *rationale* of this practice is, that after the comb or flower has made its appearance, the stem ceases to increase in length, and, consequently, all the nourishment supplied by the transplanting goes towards increasing the size of the comb."

No ornamental herbaceous plant in the country is more deserving of attention than *primula sinensis*. It is but a very few years since it was imported from China, and it is already to be met with everywhere in Europe and America. To induce the exhibition of its beauties, however, it is absolutely necessary that it be frequently transplanted. When the writer first received this plant from Mr THOMAS HIBBERT of Philadelphia, a skilful grower of exotics lately from England, it was divided in the root, one part left in the pot in which it was received, which quickly put forth a number of uninteresting pale flowers. The other division was transplanted as above recommended in loam and leaf mould, which delayed the flowering some weeks; but when it did bloom, nothing could exceed its beauty, covered with a profusion of neat pink blossoms, which were double the size of those of the other plant.

It is gratifying to the purchasers of the Encyclopedia of Gardening, by JOHN CLAUDIUS LOUDON, to learn, that a supplement thereto is now publishing in London, of which a sufficient number of copies will be printed to supply all the holders of the principal work. A new edition is also said to be in the course of preparation. There is also cause for believing that an Appendix to the Encyclopedia of Plants, will be given ere long, which is necessary to the completion of the work as it was commenced in 1822, since which time, important discoveries have been made in the science. Any man who wishes correct information of the present state of Botany, Agriculture and Horticulture in Europe, cannot do better than supply himself with the Encyclopedias of Plants, Gardening, and Agriculture, and the Gardener's Magazine. Even in the small matter of the purchase of a book, it is desirable to receive our money's worth, which is ever the case in buying the works of Mr LOUDON. The fifth edition of the Encyclopedia of Gardening is as neat a specimen of typography as has been issued from the London press; in contains more than seven hundred engravings, and as much reading matter as three of the large quarto volumes of Rees' Encyclopedia. L.

York, Pa. Jan. 15, 1830.

FOR THE NEW ENGLAND FARMER.

NATIVE GRAPES.

Mr FESSENDEN—There seems to exist much perplexity in the public mind, which variety of the *Bland grape*, that has been presented to the Horticultural Society for examination the last season, is the true Bland. That many should be confounded, is not surprising, as there has been placed before the Committee for inspection, four varieties so called, of Red grapes, viz. *Bland's pale Red*, *Bland's Virginia*, *Bland's Madeira*, and the *Bland* or *Powel grape*, which, in fact, are all one kind. As one of the Committee, and usually present at the tasting of fruits, I will endeavor to select the variety that I consider the *true Bland's pale Red grape*; (this name I shall call it,) and the reasons why I am induced to believe it is.

As the foliage and wood of the above kinds are so similar, it would be difficult to observe the difference, I will resort to the different forms of the bunches, and size of the berries; some were short bunches, small berries, and quite acid;—some large berries, good size, but on short bunches, were nearly ripe and good tasting; but those from the garden of N. SEAVER, Roxbury, were decidedly the best in taste, fine, long bunches, and handsome berries; this variety I shall speak of as the *true* Bland.

Mr SEAVER offered his grapes the last Saturday in September, and the two following in October, for examination; in my opinion, this is the best variety of our native grapes. Mr S. informed me his vines were cuttings taken from Major J. ADLUM's vineyard, Georgetown, D. C., from his Bland vines, and I will select Mr ADLUM's description of this grape from his "Treatise on the Vine," by which you will have a true delineation of Mr S.'s grapes. I will also add the history and origin of this variety, in a letter to the writer of this article, which appears to be good authority, and sets it in a clear light; likewise I will add an extract from a gentleman's letter in New Jersey, to show that this variety the last two years, *has matured better there than with Mr* ADLUM; *this also has been the case here, for Mr* SEAVER *informs me his grapes have ripened well the last four years; this proves that our summers are sufficiently warm and long, to remove all doubts that have been expressed of their not ripening so far North.*

Description from Mr ADLUM's *Book.*—"This grape, when perfectly ripe, is of a dark purple, otherwise of a pale red color. Mr BARTRAM, in his letter to Dr MEASE, above mentioned, describes it as follows:—'The bunches are large, branched and well shaped, six or eight inches in length; the berries large, about the size of the common white grape of Europe, and round or oblate; when perfectly ripe, of a dark purple, or red wine color; the juice sweet and lively, having a little musky flavor, with a small portion of an agreeable astringency, somewhat like our best bunch wild grapes, though much sweeter than any of them. If this grape is what I take it to be, a genuine American, it is a hybrid or variety. * * * * I have been thus particular, because, in Virginia, they call it, or a grape like it, the MAZZEI grape, and say that it was brought from Italy by him. From the respectable authority that gives this account, I have no doubt but that Mr MAZZEI carried a grape like it, or itself to Virginia; but at the same time, I am as certain as a person can be, that did not see the whole operation, of the grape growing from the seed, that the Messrs BARTRAM had the grape that I call the Bland Madeira, and am now cultivating by that name, before even Mr MAZZEI came to, or saw this country."'

Extract from Major J. ADLUM's *letter to me, dated November* 8, 1829.—"My opinion is, that the Bland Madeira will not answer so far north as Boston; it is the latest I have, and they only ripen well with me once in about three years; and without they are growing against a house or a well sheltered arbor, or in a town, I think there is but very little chance of their ripening well in your latitude; the year before last they ripened well with me; but last and this year they did not ripen at all. The late Mr BARTRAM, whose father before the revolution, was called the Queen's Botanist, informed me as far back as the year 1788, that the Bland Madeira was a native, and found on the eastern shore of Virginia, by a Mr BLAND, and from whom he got it; and the late SAMUEL POWEL, Esq. got the same grape from Mr BLAND."

Extract from another letter from Major J. ADLUM, *dated November* 29, 1829.—"Your account of Mr SEAVER's Bland grape is very gratifying to me; I recollect young Mr SEAVER's getting the cuttings from me, and I am certain he got the true kind. Mr SEAVER's Bland grape is, I suppose, in a well sheltered situation; whether they would ripen equally well in a vineyard in the country, is a question. My Blands are now on the vines unripe. There is no accounting for fruits' ripening in different climates; probably the change of soil and the nature of it, with the sun being more powerful, and the season more uniform in a northern than a southern latitude, may in less time, ac-

climate the fruit removed to it. The two last seasons a considerable part of the ends of the vine continued green until the frost came, when they were of course destroyed when the wood was not ripe."

Mr Seaver's Bland vines are planted apart; some in the centre of his large garden; some fifteen feet from the southwest end of his house, and one vine the east side of a stone wall, under a tree; this last is the only one on which the grapes did not mature well.

From the following extract from a letter to me, from a gentleman in New Jersey, of Dec. 11th, 1829, it will appear the Bland grape does well there.—"The Bland or Powel grape has been cultivated with success here; it is a large red berry disposed in large long bunches, and it is a great bearer; this season it has not ripened so well as usual, but my neighbor had them in the best perfection of any person I know; he had a beautiful supply from the middle of September to the latter end of October.

CATAWBA GRAPE.

As this grape will be introduced into cultivation in this part of the country, and probably will take a considerable place in our gardens and fields, I will state the information that has been given me, from Major J. Adlum, in a letter of Nov. 8, 1829.

"The Catawba vine, I found in Mrs Schell's garden, at the village of Clarksburgh, Montgomery county, Maryland, and the family could not inform me how or where Mr S. got it; all they knew about it, was, that he in his life time, called it *Catawba*. It makes wine of various qualities, all good, and I look upon it as worth all the grapes in the United States, foreign or domestic, for a vineyard. I have no doubt, but the Catawba grape will please you as a native of our country. It is the most beautiful grape to the eye, when they begin to ripen, that I know of. Those that ripen fairly in the sun are of a purple color; those that are partially shaded, are of a lilac color; and those that ripen in the shade are mostly white, and are longer in ripening than those that have the advantage of the sun, but have none of the musky flavor, resembling the Frontignac, that the colored ones have; when white they are perfectly sweet, and semi transparent.

I had heard so much about Mrs Schell's vine in the summer, and the quantity of grapes on it, that in the autumn, I rode to her house to view it, on an arbor seventeen feet long. I estimated there were on one vine over eight bushels grapes in fine order. I then rode to Joshua Johnstones, Esq. to see the eleven vines he had from Mrs Schell's vines growing on fifty yards of trellis, and I estimated the crop would exceed thirty bushels of fine grapes. I have had from a single vine in my vineyard, from three to five pecks of grapes, of four years old, from one cutting. Foreigners invariably prefer the Catawba to the Bland, and so do some Americans; the berries of the Catawba are rather larger than the Bland, as also the clusters; they ripen earlier, and when they have not too much color, will, I think, suit any palate as a table grape; they have been kept in good order till the following March."

The writer will take this opportunity to remark, that it appears to him the time is not far distant, when we shall manufacture our own wine from native grapes, instead of currants, that take so much sugar. Also the Bland, Isabella, Catawba, and other native grapes, will be raised in such abundance, they will be preserved through the winter, and handed round as common as apples now are. S. DOWNER.

Dorchester, Feb. 2, 1830.

GENERAL DEARBORN'S ADDRESS.

[*Continued from page 211.*]

In this pursuit, as in all others, practice has been too long estranged from scientific theory. Each has had its professors and disciples, but without any reciprocation of benefits, or scarcely the recognition of affinity. Science was cultivated as an abstract mental embellishment, rather than to facilitate the labors of the artist, while the arts have been practised, unaided by the instructions of science. The latter was deemed too etherial and sacred, to pass even beyond the seclusions of philosophy, save in a language which was unintelligible to the multitude; and the uninitiated operator accomplished his work, ignorant that he was successfully performing an experiment which depended on established theoretical principles as the scientific was incapable, of illustrating the correctness of his theory by actual experiment. There was an ostentatious display of intelligence without practical utility, while the useful, unaided by intelligence, was but imperfectly practised. But more comprehensive and liberal views are now entertained, and it is the enlightened policy of modern instruction, to effect a re-union of science and art, of theory and practice. We behold philosophy directing the labors of the workshop, and practical mechanics giving instruction in the halls of science. The happy consequences of this moral revolution; its exhilarating influence on all the economical, as well as the ornamental arts are apparent, in the unparallelled prosperity of those nations, which have taken the lead in the development of mind, the encouragement of industry, and the prudential management of their natural resources.

Chemistry has taught the manufacturer the mode of ascertaining the causes, which so often disappointed his hopes of successful results,—has enabled him to rectify mistakes, without the loss of materials,—to discover new resources, perfect his manipulations, improve the quality of his products, and open other avenues to wealth.

The mechanic is guided by a knowledge of physics;—the illustrations of science have enabled the machinist to triumph over the inertia of matter, and to give it such an infinitely varied combination of movement, that they appear the effects of vitality and intelligence. Who can behold the mysterious movements of the steam engine, without being forcibly impressed with the idea, that it acts like a thing of life,—that it is some huge monster,—a subdued Polyphemus, who, breathing vapor, and smoke, and fire, labors in agony and wrath, obedient to the will of man. Located in the gorges of the mountains, it drains subterranean rivers, from the profound caverns of the miner; and affixed to the fleets of commerce and of war, they are driven triumphantly through adverse tides and storms, like roused leviathans.

The unnatural alienation of the sciences and arts, which so long retarded every other branch of national industry, had the same deleterious effect on tillage, which was also doomed to encounter other difficulties, equally, if not more discouraging. It was too generally considered as a degrading occupation, and was scarcely ranked among the pursuits of the learned, and affluent, until Lord Bacon and the erudite Evelyn deemed it worthy of attention, and gave it the sanction of their illustrious names.

The first English treatise on rural economy was Fitzherbert's "Book of Husbandry," which was published in 1634. Tusser's "Five Hundred Points of Husbandry" appeared about thirty years after, and was followed by Barnaby Googe's "Whole Art of Husbandry," and "The Jewel Houses" of Sir Hugh Platt. Early in the eighteenth century, the celebrated treatise of Jethro Tull excited much attention, and several new works of considerable consequence were announced before 1764, when the valuable publications of Arthur Young, Marshel, and of numerous other authors, spread a knowledge of cultivation, and cherished a taste for rural improvements throughout Great Britain, which has rendered that kingdom as distinguished for its tillage, as for its advancement in manfactures and commercial enterprise. Agriculture has covered her barren heaths with luxuriant crops, converted her pools and morasses into verdant meadows, and clothed her bleak mountains with groves of forest trees,—while horticulture is rapidly extending her beneficent and gladsome influence, from the palace to the cottage, and adorning the precincts, or overspreading the entire regions of her adventurous precursor.

After the immortal Linnæus published his "System of Nature," Botany became a popular science, and its numerous votaries produced a variety of interesting elementary works, which, with those of Miller, Wheatly, Abercrombie, Repton, Price, Maddock, Panty, Sang, Loudon, and Knight,—the British Columella,—rapidly diffused intelligence among all classes of society. A passion for experiment and ornamental planting was thus induced, which give sufficient promise, that what had been figuratively expressed, might be, ultimately, realized, and the whole island become, in truth, a "Garden." *(To be continued.)*

Curious fact in Natural History.—The large snails which are found in gardens and woods, discharge a whitish substance, with a slimy and gelatinous appearance, which has been known to cement two pieces of flint so strongly as to bear dashing on the pavement without the junction being disturbed, although the flint broke into fragments by fresh fractures.

It is stated in the annals of the Horticultural Society of Paris, that the white maize (Indian corn) of China, although it produces a smaller grain than the maize of Pennsylvania, which has been hitherto much cultivated in France, yields more abundantly, and gives a much finer flour. Some Chinese maize, sown in the south of France during the present year, is stated to have turned out very well, notwithstanding the badness of the season.—*Lit. Gazette.*

Mr Stephenson, the Engineer, to whose locomotive was awarded the £500 premium, in a late communication, says "the Rocket actually accomplished one mile in one minute and twenty seconds; being *at the rate of fortyfive miles an hour.*

Rhode Island.—The Legislature of this year has passed a law (38 to 20) for abolishing all regimental, and all company trainings, except one each year.

LIBRARY OF USEFUL KNOWLEDGE.

[*Continued from page 220.*]

CHAPTER II.

THE DIFFERENT FOREIGN BREEDS.

THE EAST INDIAN HORSE.

We will now travel further eastward, and look at the breeds of horses in our Indian possessions. First, we have the *Toorky*, originally from a Toorkoman and a Persian, beautiful in his form, graceful in his action, and docile in his temper. It is said that, when skilfully managed, the grandeur and stateliness of his carriage are equal to what the warmest imagination can conceive of the horse; his spirit rising as his exertions are required, he exhibits to his beholders an appearance of fury in the performance of his task, yet preserving to his rider the utmost playfulness and gentleness.

Next comes the *Iranee*, well limbed, and his joints closely knit, and particularly powerful in the quarters, but with scarcely sufficient spirit, and his ears large and loose.

The patient and docile *Cozakee* is deep in the girth, powerful in the forearm, but with large head, and sadly cat-hammed; hardy, and calculated for long journeys and severe service.

The *Mojinniss* have spirit, beauty, speed and perseverance.

The *Tazsee* is slight, hollow backed, and, for that reason perhaps, although deficient in strength, and leaving, as it were, his legs behind him, and likewise irritable in temper, yet sought after on account of the peculiar easiness of his pace.

A sale of horses near the Company's stud, at Hissar, is thus described by an excellent judge.—"Not less than one thousand horses were shown. They were all above fourteen hands and a half in height, high crested, and showy looking horses. The great defect seemed a want of bone below the knee, which is indeed general to all the native horses throughout India; and also so great a tendency to fulness in the hocks, that, in England, it would be thought half of them had blood spavins."

THE CHINESE HORSE.

This breed is small, weak, ill formed, without spirit, and altogether undeserving of notice.

THE PERSIAN HORSE.

Returning westward, we find the Persian next in estimation, and deservedly so, to the Arabian. The head is almost equally beautiful, the crupper superior; he is equal in speed, but far inferior in endurance. The whole frame is more developed than in the Arabian.

The Persian horses were celebrated for many a century before the Arabians were known, or even existed. They constituted, in ancient times, the best cavalry of the East. The native Persian was so highly prized, that Alexander considered one of them the noblest gift he could bestow; and when the kings of Parthia would propitiate their divinities by the most costly sacrifice, a Persian horse was offered on the altar. An entertaining traveller, (Sir R. Ker Porter) bears testimony that they have not now degenerated. He gives the following account of this breed.

"The Persian horses never exceed fourteen or fourteen and a half hands high, yet certainly, in the whole, are taller than the Arabs. Those of the desert and country about Hillah run very small, but are full of bone, and of good speed. General custom feeds and waters them only at sunrise and sunset, when they are cleaned. Their usual provender is barley and chopped straw, which, if the animals are piquetted, is put into a nose bag, and hung from their heads; but if stabled, it is thrown into a small lozenge shaped hole left in the thickness of the mud wall for that purpose, but much higher up than the line of our mangers, and there the animal eats at his leisure. Hay is a kind of food not known here. The bedding of the horse consists of his dung. After being exposed to the drying influence of the sun during the day, it becomes pulverized, and, in that state, is nightly spread under him.* Little of it touches his body, that being covered by his clothing, a large *nummud* from the ears to the tail, and bound firmly round his body by a very long surcingle. But this apparel is only for cold weather; in the warmer season the night-clothes are of a lighter substance, and during the heat of the day, the animal is kept entirely under shade.

"At night he is tied in the court yard. The horses' heads are attached to the place of security by double ropes from their halters, and the heels of their hinder legs are confined by cords of twisted hair, fastened to iron rings, and pegs driven into the earth. The same custom prevailed in the time of Xenophen, and for the same reason, to secure them from being able to attack and maim each other, the whole stud generally consisting of stallions. Their keepers, however, always sleep on their rugs amongst them, to prevent accident; and sometimes, notwithstanding all this care, they manage to break loose, and then the combat ensues. A general neighing, screaming, kicking, and snorting, soon rouses the grooms, and the scene for a while is terrible. Indeed no one can conceive the sudden uproar of such a moment who has not been in Eastern countries to hear it, and then all who have, must bear me witness that the noise is tremendous. They seize, bite, and kick each other with the most determined fury, and frequently cannot be separated before their heads and haunches stream with blood. Even in skirmishes with the natives, their horses take part in the fray, tearing each other with their teeth, while their masters are in similar close quarters on their backs."

His description of a Persian race does not altogether remind us of Newmarket or Doncaster.

"My curiosity was fully on the spur to see the racers, which I could not doubt have been chosen from the best in the nation, to exhibit the perfection of its breed before the sovereign. The rival horses were divided into three sets, in order to lengthen the amusement. They had been in training for several weeks, going over the ground very often during that time; and when I did see them, I found so much pains had been taken to sweat and reduce their weight, that their bones were nearly cutting the skin. The distance marked for the race was a stretch of four-and-twenty miles, and, that his majesty might not have to wait when we had reached the field, the horses had set forward long before by three divisions, from the starting point, (a short interval of time passing between each set,) so that they might begin to come in, a few minutes after the king had taken his seat. The different divisions arrived in regular order at the goal, but all so fatigued and exhausted, that their former boasted fleetness hardly exceeded a moderate canter when they passed before the royal eyes."

In Circassia almost every family of distinction, whether of princes or nobles, boasts of possessing a peculiar race of horses, which, when young, are burned on the buttock with a particular mark. On this occasion, they act with the most scrupulous adherence to custom, so that a person who should attempt to burn a character expressing noble descent, on a filly of a common race, would, for such forgery, forfeit his life. The most celebrated race of Circassian horses has received the name of Shalokh, and is in the exclusive possession of the Tau Sultan family. This race is valuable for its strength and swiftness, more than its peculiar beauty. Its distinguishing mark is a full horse shoe, without an arrow.

THE TOORKOMAN HORSE.

Turkistan is that part of South Tartary, northeast of the Caspian sea, and has been celebrated from very early times, for producing a pure and valuable breed of horses. They are called *Toorkomans*. They are said to be preferable even to the pure Persians, for service. They are large, standing from fifteen to sixteen hands high;—swift, and inexhaustible under fatigue. Some of them have travelled nine hundred miles in eleven successive days. They, however, are somewhat too small in the barrel,—too long on the legs,—occasionally ewe necked, and always have a head out of proportion large; yet, such are the good qualities of the horse, that one of the pure blood is worth two or three hundred pounds, even in that country.

Captain Fraser, who is evidently a good judge of the horse, (in his Journey to Khorasan) thus relates the impression which they made on him:—"They are deficient in compactness. Their bodies are long in proportion to their bulk. They are not well ribbed up. They are long on the legs,—deficient in muscle,—falling off below the knee;—narrow chested,—long necked,—head large, uncouth, and seldom well put on. Such was the impression I received from the first sight of them, and it was not for some time that their superior valuable qualities were apparent to me."

[*To be continued next week*]

* It is the usual flooring of the stable and the tent. The united influence of the sun and air deprive it of all unpleasant odor, and when from use it becomes a second time offensive, it is again exposed to the sun, and all unpleasant smell once more taken away.

HORTICULTURE.

MR FESSENDEN—As the cultivation of *Silk Worms* now claims attention, in all parts of the United States, the following extract may be found interesting to the experimentalist; and believing that the newly discovered Mulberry tree, which has excited so much inquiry in Italy and France, would be a valuable acquisition to this country, measures have been taken, to procure seeds from Europe, for distribution among the members of the Massachusetts Horticultural Society.

Silk will become one of the great staple products of our country, and although the rearing of the valuable insects which produce it, does not properly belong to the domain of Horticulture, still, the cultivation of the trees, which afford them their appropriate aliment, is specially included, and constitutes one of the most important departments. Very respectfully,

Your most obedient servant.

Brinley Place, Jan. 29, 1830. H. A. S. DEARBORN.

EXTRACT NO. II.

From the Annales D' Horticulture.

Report on a new species of Mulberry Tree, discovered by M. MORETTI, *Professor of Agrarian Economy in the University of Pavia; by* Dr FONTANEILLES.

GENTLEMEN—Having been directed, at your last meeting, to make a report upon a letter, which was published in 1826, in the Journal of Physics and Chemistry of Pavia, and presented to the Society by Baron de SILVESTRE, I have attentively examined it, and the following is the most essential portion of its contents.

M. GERA, the author of this letter, informed M. APRILIS, professor of natural sciences in the Lyceum of Udina, that a new Mulberry tree had been found, about twelve years since, by M. MORETTI, in the midst of a nursery of wild white mulberry trees, which had been formed in the garden, consecrated to the instruction of the pupils. The extraordinary size of the leaves of this young tree, attracted the attention of the professor, who immediately, perceived that they differed in form from those of the common mulberry tree. The idea that this was only a deviation of nature, did not satisfy the perspicacity of M. MORETTI. He perceived the great advantage which these leaves, several times larger than ordinary offered, and immediately isolated the young tree, and paid particular attention to its cultivation. The intelligence of this professor has not been at fault. A few years have been sufficient to realize his anticipations. Experience now proves that this valuable tree is a new species; for, within nine or ten years, there have been cultivated at least one hundred and twenty thousand plants, all resembling their parent; their leaves having exhibited no alteration in size, or in the particular qualities recognised in those of the first wild tree.

M. GERA has given the following description of the tree.

1st. Petiole groved, and about three inches long; leaf ovate, sharp pointed, entire, cordate at the base; as thin as the leaf of the common wild mulberry; smooth on the under and upper surfaces, and especially the latter, which is also of a beautiful, rather deep and shining green. This leaf is not near so thick as that of the large white mulberry, which is called in France the *Admirable*, and is thinner than those of the Spanish mulberry, *(Morus nigra L.)* It has very few nerves, and is neither wrinkled or plaited. It is in general nearly eight inches wide, and about ten in length.

2d. The male ament, *(amentum veljulus)* is longer than that of the common mulberry; the florets at greater distances, and the anthers shorter and more obtuse.

3d. The female ament, on the contrary, is shorter, and the florets nearer together; the pistils are more developed, varied, and firmly attached until the perfect maturity of the fruit, which at first appears of a violet color, and then becomes black.

This mulberry has some resemblance to the *Morus rubra*, L., *Morus virginiensis*, Pluk; nevertheless, it appears to flourish best in the form of a hedge; besides, its leaves are more agreeable to the silk worm, and they are more profitable. The male flowers of the two varieties above named, are separated from the female; still it is not uncommon, to find them united in one receptacle, upon the *Morus virginiensis*.

The Count DANDOLO has proved by many experiments,* and M. DOISELEUN-DESLONGCHAMPS, has confirmed it, that the leaf of the wild mulberry produces a finer and stronger silk, than that yielded by the silk worms, which are fed on leaves from grafted trees.

It was this fact which attracted the attention of M. MORETTI; the new wild mulberry, said he, affording larger leaves, with the same qualities as those of the common mulberry, the product should be considerably augmented, and this has been proved, by the author of the letter, which is the subject of my report, by conclusive experiments, made on his own estates, which I shall succinctly make known to you.

M. GERA selected the eggs of the common silk worm, and when hatched, he divided them into three equal portions; one of them he fed with the leaves of the grafted mulberry, another with those of the common wild mulberry, and the third with the leaves of the new mulberry.

The better to ascertain the effect of the food and consequently the difference of the products, he made at the same time another experiment; he isolated a certain number of silk worms, which were fed with the leaves of the grafted mulberry, and after they had shed their second skin, he divided them into separate lots. He continued to feed the worms of one lot with the leaves of the grafted mulberry, but gave to the others none but the leaves of the new mulberry. When he had collected the cocoons of all the silk works submitted to his experiments, the silk was wound from each parcel and kept separate. The silk produced by the worms fed entirely with the leaves of the grafted mulberry, was, in weight, of the standard of 26 deniers, and that made by the worms fed with the leaves of the wild mulberry, as well as that of those fed with the new mulberry, had each the weight of twentyfour deniers,† which directly proves the superior fineness of these two over the first; and that, with the leaves of the new mulberry, the same degree of fineness was obtained as with those of the common wild mulberry. M. GERA has also remarked, that, in general, the silk produced from the leaves of the new mulberry, has a more beautiful gloss, that it is of a more delicate straw color, and that it is stronger than common silk.

This active and intelligent cultivator having multiplied his experiments to obtain other advantages, has ascertained, that, when the worms have been fed with a mixture of the leaves of the grafted and new mulberry the silk is of a better quality, and that, if the eggs of the worms thus fed, are hatched and nourished in the same manner, the product is still more ameliorated. These experiments, which were made in 1826, were to be repeated in 1827–28. I have requested M. MORETTI to make known to me the results, and I shall hasten to communicate them to the society.

Observation has equally proved to M. GERA, that the seminaries of the new mulberry contain more male than female plants. He has also remarked that the latter yield less fruit than the common white mulberry, but that it is larger.

In general, up to the period of the publication of "*l' Art d' elever les vers a soie*," by M. DANDOLO, it was the custom to distribute the leaves among the worms, in the last stages, without taking off the fruit, which is then ripe, and produces a great quantity of moisture, which is very injurious to these insects; but I believe that this custom has now entirely ceased. On this subject, I will add, that it appears to me we should view a too great abundance of fruit in another aspect, not less interesting; there is not an agriculturist, who does not know, that all plants require most nourishment at the epoch of their fructification; from this axiom, the just consequence has been deduced, that by preventing the fructification, the plant will have more, and continue a longer time in vigor. Experience has proved this, especially in exotic plants, such as oranges and lemons, which have been despoiled of their blossoms. Should we not do the same with the mulberries? If this operation should be favorable to the conservation of these valuable trees, the system of lopping or pruning, after the leaves have been gathered, which is generally adopted in Upper Italy, and in the east of France, might be dispensed with. It may certainly be objected, that the expense would be too great; to this I reply that at the period of the year when this operation should be performed, the laborers have but little to do in the field, and besides, the cost would be balanced by the suppression of the practice of pruning.

On presenting to the society the letter, which has been the subject of my report, M. le Baron de SILVESTRE, distributed some of the seed of the new mulberry, which he had received from Professor MORETTI, at the time he visited Paris. This philosopher also presented some to me, which I offer to the members of the Society who are desirous of making an experiment. We should encourage in France the cultivation of this new tree; for if it answers our expectation, the product of silk will be considerably augmented.

I propose that the thanks of the Society be tendered to M. MORETTI for the favor he has conferred upon it, as well as on the agriculture and industry of France. FONTANEILLES, D. M.

* See l' Art d' elever les vers a soie (The Art of raising silk worms) by Count DANDOLO, which has been translated by FONTANEILLES.

† It appears that the word *denier* expresses the weight of the silk, whose degree of fineness is based upon the degree of comparative levity.

From Silliman's Journal of Science and Arts.

Origin of Coal.—A man in Monongalia county, Va. in digging a well, penetrated a layer of bituminous coal at the depth of 34 feet, and about five feet lower came to another stratum of coal. Between these strata he found a piece of wood perfectly sound, except its being a little charred. It is inferred from this that wood buried in the earth is the origin of coal beds.

Much of the land in the Ohio and Mississippi valley is "made land," to the depth of 40 feet or more. A man in Warren county, Ohio, found a pine tree 15 inches in diameter, in a perfectly sound state, forty feet below the surface. It was on high table land, 20 miles from the Ohio river.

Foundling Hospitals.—In Catholic countries, numerous asylums have been open for new born children, which are abandoned by their parents. Protestant countries, on the contrary, have suppressed the greater part of these institutions. The consequence is, that illegitimate and abandoned children are far more numerous in Catholic than in Protestant countries. About one third of all the births in Paris are illegitimate and more than 5000 children are annually abandoned by their parents and supported in Foundling Hospitals at

the expense of the state.—[Let there be no such asylums in the U. States. The number of abandoned children will be greatly increased by every establishment of this kind.]

Light of the fixed stars.—The light of the sun is estimated to be one million times greater than that of the moon; and Dr Wollaston concludes from various experiments, that the light which reaches us from the brightest of the fixed stars, Sirius, (Dog star,) does not exceed a 20,000,000,000th part of the sun's light, and that the light of the star Lyra is about the 180,000,000,000th part of the sun's light.—The distance of the fixed stars is a problem not yet solved.

Temperature of the sea.—It has been ascertained by many experiments that the temperature of the sea at a distance from land always decreases (that is, the water is colder) in exact proportion to the depth. At the depth of 2144 feet the water was found to be 19 degrees Reaumer (equal to 43 degrees Fahrenheit's thermometer) colder than at the surface, without calculating the rise of the mercury, while the thermometer was coming up. These facts seem inconsistent with the theory of M. Cordier, that the heat of the earth is increased in proportion to the depth, and that the interior is an ocean of fire.

NEW ENGLAND FARMER.

BOSTON, FRIDAY, FEBRUARY 5, 1830.

ADVANTAGE OF THOROUGH CULTURE.

We understand that the following is the amount of produce raised on a farm of fortyeight acres in the vicinity of the city of Boston, (fortyeight acres excluding building grounds.)

31 tons of English hay.
A small lot of Lucerne valued, (cut green for fodder) five dollars.
300 bushels potatoes.
417 " beets.
450 " mangel wurtzel.
886 " or 21 tons carrots.
Pasture for 14 cows 9 weeks, (aftermath.)
222¾ bushels barley.
900 " onions.
100 " parsnips.
1000 cabbages.
600 bushels turnips.
2½ tons squashes.
Cash received for vegetables $306,64.
Amount used in a large victualling concern, $175,00.
Celery on hand, valued at $5.

DISEASED SHEEP.

Mr Editor—In compliance with the request of your correspondent, A. L. H. (vide N. E. F., Jan. 22d) for some advice relative to what he describes as a destructive malady in his flock of sheep. I beg leave to inform him of the result of my experience and observation for several years, during which my flock has risen from five hundred to near two thousand.

I have heard and read much of the diseases of sheep, and have been agreeably disappointed in my own case by discovering no diseases but the following. *Scouring* arising from unsteady and injudicious feeding; worms in the head, attributed to the fly; and old age. In regard to worms in the head, I am inclined to consider this, also, as incident to poor keeping, which predisposes the animal to disease.

I have seen all the symptoms named by A. L. H. attending my *young* sheep, and could trace the cause directly to gross negligence in the keeper, from scanty subsistence at critical periods. Such as weaning time, change from grass to hay, and from hay to grass. No animal requires more methodical treatment than the sheep. The great desideratum seems to be, to keep them in as uniform a condition as possible. Not too warm, or confined; neither starved, or surfeited.

A NEW YORK FARMER.

Saratoga County, N. Y. Feb. 1, 1830.

SWEET POTATO.

Mr Fessenden—I have it in contemplation to attempt the raising of sweet potatoes, the ensuing season. I have hitherto found it difficult to procure the slips in the spring, in consequence of their liability to rot before the time of planting.

Will they not vegetate and grow from the whole potato, which can be obtained at most of our Connecticut markets during the spring months?

If you think the above inquiry worth your notice, I wish you would have the goodness to answer it in your paper. B.

Connecticut, Jan. 25. 1830.

Remarks by the Editor.—In a valuable paper by the Hon. J. Lowell, published in the New England Farmer, vol. 1. page 210, that gentleman states that "the *slips* of the Sweet Potato are nothing more than the small potatoes or roots *last* thrown off by the plant.—They are preferred to larger ones, on the several grounds of economy, of food and of room—of their being more easily preserved, and less likely to rot in the ground after they are planted.

"The slips should be put up for preservation without *bruising* them, (or as the directions from New Jersey expressed it, they should be handled as carefully as eggs,) in a dry state, in *perfectly* dry sand or earth, and kept in a dry state, as free as possible from moisture."

We are assured that the slips of the best sorts of this root, from Edmund Darnell, of New Jersey, (the gentlemen recommended by Mr Lowell, in a communication to the Massachusetts Horticultural Society,) are expected at the Seed Store of J. B. Russell, connected with the New England Farmer, No. 52 North Market Street, in the course of March and April.

A correspondent of the Albany Argus, "*Rusticus*," has published the following account of the weather in that meridian.

The season is one of the most remarkable I remember. During the last fortnight, we have had but a trifle of frost, the thermometer having been generally above 32 degrees. This has enabled me to anticipate my spring farm work. I have set out hundreds of forest and fruit trees, grubbed up bushes and stumps, ploughed, and sown, and planted seeds. On the first day of January, I plucked flowers of the flos adonis, and heart-ease, which had stood and bloomed in the open ground; and today, January 4, in hoeing and cleaning my strawberry beds in the garden, discovered a fine expanded blossom upon one of them.

GRAPE VINES.

The quickest method of procuring grapes, is to graft into the body, near the ground, or which is preferable, into the roots of large vines. In the following year, if the graft has taken, fruit will be produced. Thus every farmer, who has wild vines growing on his grounds, may, by procuring cuttings of hardy foreign or native kinds, and paying a little attention to the grafting and training, be soon and amply supplied with grapes for market or wine making.

CURING BACON.

The Edenton (N. C.) Gazette gives the following directions *for making good bacon*, obtained from a gentleman who has fully tested their value by experiment:

"Let the meat become perfectly cold before you cut it. Mix a quart of molasses with a bushel of fine salt, and with it rub the meat as long as it will take it. Hams from hogs weighing 150 lbs. and upwards, should remain in the cask, flesh up, twentyone days; from 100 to 150 lbs. sixteen or eighteen days. When taken out to hang up, sprinkle them on the flesh side with about a teaspoonful of saltpetre to each ham, and on the same side rub pulverized red pepper. Hang them by the upper end. Before the warm weather commences, take down your meat, examine it carefully and wash it with strong ley made from clean ashes. Be careful not to give too much smoke. In damp weather, throughout the year, make a smoke with charcoal or the bark of red oak. By following these directions, I am convinced you will always find your meat sweet and free from insects."—*Montgomery (Alabama) Gaz.*

Westchester County, N. Y. Poor House.—The average expense of supporting a pauper in this house is 50 cts a week, for food, clothing, keeper's salary, doctor's bill, medicine, and hired help, with the expense of burial of those who have died. It is also stated that the institution is a saving to the county, of $7,000, compared with the former expenses of supporting the poor, which is just about three fifths of the whole. The establishment has a farm; and work shops, to furnish constant and profitable employment for all who are able to work. Their labor has materially lessened the expense of their support; although a part of it has been applied to the erection of additional buildings, &c. In conclusion the committee say that their institution has met the expectation of its friends; that it has "afforded comfort to the poor, medicine to the sick, introduced the Gospel to them; and not a few have evidenced its moralizing influence in their life, and its consolations have been witnessed in a dying hour;" besides the instruction given to the children, and the guard over their morals.—*Jour. of Com.*

Such is the economy practised by the Duke of Orleans, one of the richest Princes of Europe, that he keeps no regular establishment for the supply of his table, but is furnished with his dinner by a traiteur at so much per head. He is also his own farmer, and looks minutely into every item of receipt and expenditure. The sum paid by Mr Crockford for one year's services of his cook, M. Ude, would supply the table of this Prince with good fare for nearly the same period. —*Boston Examiner.*

One of the favorite dishes of the late King of France was soup made of sorrel, white beans and eggs. He has frequently dined exclusively from this dish and bread, and observed that his dinner cost him less than two pence.

BRIGHTON MARKET.—*Monday, Feb.* 1.

(Reported for the Chronicle and Patriot.)

At market this day, 244 Beef Cattle, 76 Stores, 966 Sheep and 185 Swine—divided as follows: *upper market*, 166 Beef Cattle, (including 13 unsold last week) 17 Stores, 700 Sheep and 8 Swine —*lower market*, 78 Beef Cattle, 59 Stores, 266 Sheep and 177 Swine. From the above it will be observed that a less number of Beef Cattle were at market this day than at any preceding day for a long time; from which cause, together with the "peltings of the pitiless storm," the locomotive powers of the purchasers were brought into active requisition. Sales went off readily and at an advance of from 17 to 25 cts. per cwt. on last week's prices. Store Cattle go off heavily, not more than 25 were disposed of through the day.

MILCH COWS—We noticed sales of a few at $20 a $25 each. Most of the Cows and Calves that come to market are not worth the having.

SHEEP—The market continues well supplied, and meets with prompt sales and fair prices. The following lots embrace the principal sales of the day: 1 lot, 250, at supposed a trifle over $4 per head; 1 do 109, at $2 83; 1 do 53, at $2 50; 1 do 150, at $2 37½; 1 do 175, at $1 80, and 1 do 104, at $1 50.

SWINE—Not much doing in the trade. The small lot at the *upper market* were taken at about 4 cts per lb—Those at the *lower market* were not sold—4¼ cts per lb offered, but refused.

☞The Presidents of the following Agricultural Societies will each of them find a valuable package addressed to them, at the office of the New England Farmer, which they will please send for, viz.—the Cheshire, N. H.—the Middlesex, Mass. and the Strafford, N. H.

TO CORRESPONDENTS.—We are again obliged to defer several favors from our correspondents, among which, are an article on the Improved Durham Short Horn Cattle—one on the culture of Indian Corn—and others.—To S. M. of Berlin, Conn. we recommend Coxe on Fruit Trees, and Thacher's American Orchardist, Fessenden's New American Gardener, pages 17 and 244, and to various communications in the back volumes of the New England Farmer, which can be found by examining the Index.—From the crowded state of our columns, we are obliged to decline the insertion of B. W.'s long article; besides, we do not think the subject sufficiently interesting to the majority of our readers.

Real Estate,

For sale, in the city of Boston, worth about thirtyfive hundred dollars, and in a good situation. A farm, worth about 15 or 1600 dollars, would be taken in part pay; it would be preferred, if situated 15 or 20 miles from the city, in a north-westerly direction. A credit would be given for the balance. The estate will pay good interest. Inquire at this office, post paid.
Feb 5. 3t

Bull Wanted,

Of the Improved Durham short horned breed, one or two years old. Any person having a bull of the above, or some other improved breed, may find a purchaser, by addressing a line to the subscriber at Southbridge, Mass. giving a particular description of his age, *breed*, color, size, form, and temper, together with the price. EBENEZER D. AMMIDOWN.
Feb. 5. 3t

Culture of Silk.

Just received and for sale at J. B. RUSSELL'S Seed Store, 52, North Market street.

Directions for the rearing of Silk Worms and the Culture of the White Mulberry tree; published by the Pennsylvania Society associated for these objects. Price 25 cents.

Also, The Aviary, or Bird Breeder's Companion; containing copious directions for propagating the breed of Canaries, also Goldfinch and Linnet Mules, Java Sparrows, and various American birds; the best method of feeding birds in general; the German method of learning birds to sing select tunes; as well as practical recipes for the cure of the disorders to which they are liable, &c. &c. Second Edition. Price 50 cents.—A few copies of the first edition, smaller, 25 cents.
Feb. 5. tf

Catawba, and Bland's Pale Red Grape Vines.

For sale at the Garden and Nursery of S. DOWNER, Dorchester. by Rufus Howe,
75 Roots Catawba Grape Vines,
300 Cuttings do do do } From Major J. Adlum,
75 Cuttings true Bland's pale red, } Georgetown, D. C.
ALSO,
Isabella Grape Vines, 1, 2, and 3 years old.
Schuylkill, or Alexander Muscadel do, 1 and 2 years old.
True Bland's Pale Red do, 1 and 2 years old.
Feb. 5. 3t

Full Blooded Horse for Sale.

The celebrated full blooded horse 'Young Eclipse' is for sale. He was four years old last May—is a fine bay, well formed and active. Eclipse is from a Messenger Mare, his grandam from the young Dey of Algiers. The owner is willing to compare him with any horse of his age that has been raised in the New England States. Many of his colts which have taken premiums at the exhibitions, may be seen in the neighboring towns. The horse may be seen on application to EDMUND BROWNELL, Esq. Little Compton, R. I. and further information given on application at the New England Farmer office.
Little Compton, Jan. 29, 1830. 3t

Seeds for Hot Beds.

For sale at the Seed Store connected with the New England Farmer office, No. 52, North Market-street, a fine collection of seeds, both of American and European growth, for forcing in hot beds, among which are the Early Frame and fine Long Green Turkey *Cucumber*, and other varieties—Early Curled Silesia and Early Tennis-ball Head *Lettuce*—fine Early *Cauliflower* (from Holland)—Green Citron, Pine-apple; and other *Melons*—the *true* Early Short top Scarlet and Turnip rooted *Radishes*—Early York, Early Dutch, Early Emperor, Early Sugar-loaf, and Early Battersea *Cabbages*.—Also, Early Turnip Blood Beet, and Early Horn Carrot, (a peculiarly delicate sort for the table)—and every other variety of Kitchen Garden Vegetable Seeds, cultivated in the United States.
Jan. 29. tf

Sugar Beet, &c.

For sale at the Seed Store connected with the New England Farmer, 52, North Market-street,

100 pounds prime French Sugar Beet Seed, raised expressly for this establishment, by JOHN PRINCE, Esq of Roxbury, from seed originally received by him from Paris. The excellence of this root for cows, in improving their milk, and for fattening oxen, sheep, and other kinds of stock is well known—it is also a fine root for the table when drawn young and tender. It keeps later and better in the spring than Mangel Wurtzel. Also, a most extensive collection and variety of Garden, Field and Flower Seeds, Peas, Beans, &c, both of European and American growth, comprising the greatest variety to be found in New England. Country dealers supplied on the most liberal terms, either with well assorted boxes for retail—or by the pound or bushel.
Jan. 29. tf

Valuable Real Estate.

For sale, 370 acres of land in the town of Bradford, Mass. called the Elwell Farm, lying on Merrimack river, and on the post road from Haverhill to Salem and Newburyport, one mile from Haverhill bridge, and which would be sold in divisions to suit purchasers, having several houses, barns, and out houses thereon, to accommodate five or more farms, as might be wanted. Said land consists of mowing, tillage, and orcharding excelled by none in the county of Essex, and has an island directly opposite containing 50 acres, well situated for the keeping of sheep, or cultivation of grapes. Also, about 70 acres of salt meadow.

For terms, which would be made easy, please apply at the Merrimack Bank in Haverhill, or, of Messrs J. & H. J. How, merchants, in Boston. 7t
Haverhill, Ms. Jan. 8, 1830.

For Sale,

At Charlestown Vineyard, Eden-street, south side of Bunker's hill, a full collection of the finest kind of green house plants, comprising 30 varieties of camellia japonica, 100 kinds of the finest geraniums, about 20 varieties of the finest China roses, many of whichare entirely new, 5 varieties of Pæonia Arboria, a quantity of white and pink Primula Sinensis, with a great number of other plants of the most rare and valuable kinds.

The above collection consists of such plants as are hardy, and suitable for parlors; many of them have recently been selected from the first establishments in England and Scotland, by a person who had previously resided for several years in the neighborhood of Boston. He has been particular in procuring such plants as will meet the taste of the Boston public, and be suitable to the climate. They have arrived within the last month, and are in fine order, having been under the immediate care of the individual who selected them on their passage across the Atlantic.

The above will be sold at the green house, at reasonable prices, and warranted for the kinds specified on sale. A constant supply of camellia flowers and bouquets for sale as above.
Jan. 22. 3t DAVID HAGGERSTON.

New England Farmer, complete.

For sale at the office of the New England Farmer, 52, North Market-street,

A COMPLETE set of the N. E. Farmer, in seven volumes, from its commencement, Aug. 3, 1822; being the only copy that is known to be for sale. The character of this work is too well known to require comment—comprising the official accounts of the principal Cattle Shows in New England; Reports of Committees; numerous valuable essays on agriculture, gardening, orcharding, domestic economy, &c. &c. by various agriculturists in New England, and the Middle States—forming in itself a useful library for the Farmer: neatly half bound and lettered, and in very fine order, at $3,75 per volume.
tf Jan. 22, 1830.

Black Currant Wine.

For sale at the Agricultural Warehouse, 52 North Market-street,

A few dozen bottles of superior old Black Currant Wine, made by a gentleman in this vicinity; an account of its astringent and detergent properties in various complaints, and particularly the Sore Throat will be found in the New England Farmer, vol. v. page 267, written by SAMUEL W. POMEROY, Esq. and the late Doct. JOHN G. COFFIN. Price 75 cts. per bottle,—also a few bottles of old White Dutch Currant Wine, price 50 cents per bottle. tf Jan. 15.

Gleditschia triacanthos Seed.

For sale at the Seed Store connected with the New England Farmer, 52, North Market-street,

A few pounds of fresh seed of the genuine *gleditschia triacanthos*, or three thorned Acacia, for live fences. This is the sort recommended by Judge BUEL, (in the New England Farmer for Dec. 11, page 164,) who has several thousand plants growing, as the best plant that can be cultivated in this country for hedges; of very rapid growth, long and abundant thorns, and of hard and strong wood. tf Jan. 8.

PRICES OF COUNTRY PRODUCE.

			FROM	TO
APPLES, best,		barrel.	1 75	2 25
ASHES, pot, first sort,		ton.	130 00	135 00
Pearl, first sort,		"	140 00	150 00
BEANS, white,		bushel.	75	1 00
BEEF, mess,		barrel.	9 25	9 50
Cargo, No. 1,		"	7 75	8 00
Cargo, No. 2,		"	6 75	7 00
BUTTER, inspected, No. 1, new,		pound.	12	14
CHEESE, new milk,		"	6	8
Skimmed milk,		"	2	3
FLOUR, Baltimore, Howard-street,		barrel.	5 50	5 75
Genesee,		"	5 75	6 00
Rye, best,		"	3 62	3 87
GRAIN, Corn,		bushel.	62	63
Rye,		"	75	78
Barley,		"		62
Oats,		"	40	42
HOG'S LARD, first sort, new,		cwt.	8 00	8 50
LIME,		cask.	85	90
PLAISTER PARIS retails at		ton.		4 00
PORK, clear,		barrel.	15 00	16 00
Navy, mess,		"		12 50
Cargo, No. 1,		"		12 50
SEEDS, Herd's Grass,		bushel.		2 00
Orchard Grass,		"		3 00
Fowl Meadow,		"		3 00
Rye Grass,		"		4 00
Tall Meadow Oats Grass,		"		3 00
Red Top		"	62	1 00
Lucerne,		pound.	38	50
White Honeysuckle Clover,		"	33	50
Red Clover, (northern)		"	7	8
French Sugar Beet,		"		1 50
WOOL, Merino, full blood, washed,		"	40	45
Merino, full blood, unwashed,		"	25	30
Merino, three fourths washed,		"	32	35
Merino, half blood,		"	30	33
Merino, quarter washed,		"	28	30
Native, washed,		"	28	30
Pulled, Lamb's, first sort,		"		40
Pulled, Lamb's, second sort,		"	28	31
Pulled, " spinning, first sort,		"	33	35

PROVISION MARKET.

CORRECTED EVERY WEEK BY MR HAYWARD,

(Clerk of Faneuil-hall Market.)

BEEF, best pieces,	pound	8	10
PORK, fresh, best pieces,	"	7	8
whole hogs,	"	5	6
VEAL,	"	4	8
MUTTON,	"	3	7
POULTRY,	"	6	10
BUTTER, keg and tub,	"	12	17
Lump, best,	"	15	23
EGGS,	dozen.	16	19
MEAL, Rye, retail,	bushel.		70
Indian, retail,	"		70
POTATOS,	"	33	40
CIDER, [according to quality,]	barrel.	2 00	3 00

MISCELLANIES.

We have been induced to make an exception to our general rule not to insert obituary notices in the New England Farmer, from friendship to the relatives of the deceased, and a wish to give publicity to effusions of a personal friend of her, whose virtues they commemorate.

DIED, at Rutland, Vt. on the last day of 1829, Miss SARAH HOOKER, daughter of Dr THOMAS HOOKER, in the 23d year of her age. To her numerous and respected friends no one may write her eulogy. She was above the reach of common panegyric;—and if, among her acquaintance, some one should dare to paint her to those who had not seen the original, the likeness will be censured, as too perfect for humanity. All should rejoice that she had lived;—none should lament that she has more happiness than the condition of apostate earth could have given to her.

So erst from Hermon's sacred mount, had come
The holy dew:—on Sharon's rose, stood bright
In vernal suns, one precious, hallow'd drop.
The passing pilgrim marvel'd aught so pure
On earth could be. It drank a beam from heaven,
And upward went, to shine in endless day.
Boston, January, 1830.

Abstracts from Silliman's "Journal of Science and Arts," for January, 1830.—*By the Editor of the Hampshire Gazette.*

Origin of springs and fountains.—George W. Long adduces facts from which he thinks it may be demonstrated that springs flowing on the sides of hills, and in deep places and wells receive their water from the condensation of vapor exhaled under the surface and not from rains. The heaviest rains seldom penetrate more than a few inches, especially on the sides of hills where springs are the most numerous. Springs that have their sources near the surface fail in periods of drought, because the vapor escapes through the dry earth into the atmosphere. Rains or a moist atmosphere by moistening the ground, form an impediment to the escape of the vapor. There is a great amount of exhalation in the form of vapor, constantly going on from the interior of the earth towards its surface; strata of rocks and various kinds of earth oppose the escape of this vapor and convert it into water which falls into cavities or saturates the earth underneath and gives a supply for springs. The origin of the subterranean water which affords the exhalation is not explained. The editor suggests that it may be derived, not directly but ultimately from rains and waters upon the surface, which sink into the earth, and are distributed through the interior, or there may be some great subterranean reservoirs of water. He does not doubt the formation of vapor, and its condensation into water in the earth.

Mechanics.—Zachariah Allen has published at Providence, "The Science of Mechanics, adapted as a Manual for Mechanics and Manufacturers." This book may save the expense of many useless and abortive experiments. An immense amount of property has been squandered in unavailing experiments, and in the construction of mills and machinery, from the want of a theoretical knowledge of mechanical powers, and a practical knowledge of their application. This work treats of gravitation, cohesion, friction, heat, motion, hydrodynamics, water wheels, pneumatics, windmills, elements of machinery, wheel work, &c.

In regard to heating rooms, Mr Allen calculates that it costs ten times as much for fuel to produce an equal degree of heat in an apartment by means of ordinary open fire places, as by close stoves, with long pipes; and that an open Franklin stove requires nearly three times the expense for fuel as a close stove with long pipes.

The motion of overshot water wheels is sometimes seriously obstructed by the quantity of back water sucked up by the ascending bucket, when it first leaves the water. Dr Bigelow says this difficulty may be remedied by making a few small holes near the base of the bucket, communicating with the next bucket. The air will enter through these holes, and prevent the suction; the water which escapes through the holes only flows from one bucket to the next, and its effect is inconsiderable, when compared with the advantage gained.

Cause of morning fog over rivers.—A fog is formed whenever watery vapor arising from the earth meets with colder air, which condenses it. A river does not become sensibly colder during the night than it was the preceding day, but the air over the land becomes a number of degrees colder, and the vapor from the river, which is nearly as much by night as by day, coming into contact with colder air, is condensed into fog.

Malaria, or bad air.—The Journal has a long article to show that fever and ague, intermitting and remitting fevers, and some other diseases, result from those poisonous exhalations, which arise from marshes, morasses, ponds, canals, swamps, wet pastures and meadows, bogs, newly cleared lands, neglected gardens and ruins, and inundated plantations. Juicy weeds and aquatic plants in a state of decay yield more of these noxious effluvia than other vegetables. To subdue the causes of malaria, it is recommended to drain or fill up wet grounds, and to prevent the collection of pools and standing water where vegetation flourishes. Next in importance, are cleanliness and ventilation. Fire and smoke have been found of great utility. In the low countries of Carolina, emigrants, teamsters, &c, find no injury from sleeping in the open air, because they build a large fire of logs, and lay themselves beside it.

Burying grounds.—A writer in the Journal disapproves the custom of burying under churches. The monuments raised over the dead in churches cherish pride instead of humility. "Make not your church a show house, is a lesson which cannot be too strongly inculcated." The New England custom of having one burying ground common to all denominations, is the best, and is every year becoming more prevalent throughout the United States. There is no reason why we should carry our distinctive religious characters to the grave, where speculations and forms can no longer profit us.

Diamonds.—The mines of Brazil furnish annually from 25 to 30,000 carats, (a carat is four grains) or from 10 to 13 pounds of rough diamonds. The expense of exploring the mines is about seven dollars per carat. If a slave finds a diamond of more than 70 grains, he obtains his freedom. A rough diamond weighing one carat sells for $9; two carats $36; four carats $144; eight carats $576; sixteen carats $2304, &c. A cut diamond, weighing sixteen carats, if the form and color please, is worth $9216. The cutting of diamonds is effected by means of diamond powder on a horizontal wheel of soft steel. The diamond consists of pure crystallized carbon, or pure charcoal.

Natural Gas.—The village of Fredonia, N. Y. about 40 miles from Buffalo, and two from Lake Erie, is lighted by natural gas. The inflammable gas ascends through a hole in the fetid limestone rock, and is conveyed by pipes through the whole village; 100 lights are fed from it at an expense of one dollar and fifty cents yearly for each. The gas is supposed to come from beds of bituminous coal.

Humboldt.—This celebrated traveller has made a scientific tour in Siberia. He pushed his researches to the outposts of China, and visited the Chinese commandant, who was seated in his tent dressed in silks, with a long peacock's feather in his cap; for a bit of red velvet he sold Humboldt a historical work in Chinese. The traveller explored the Ural mountains, and the mines of platina, gold, &c. The gold is found in the sands, a little below the surface; lumps of 18 and 20 pounds are sometimes obtained.

Tomato Mustard and Ketchup.

For sale at the Agricultural Warehouse, No. 52 North Market street, Tomato Mustard, an excellent article for beef steaks, roast meats, &c. made in the best manner by a person regularly educated at the business in Europe—price 50 cents per bottle—also, Tomato Ketchup, prepared by the same person, in different sized bottles—prices 50, or 33 cents per bottle. Oct. 16.

Powder at 2s per lb.

DUPONT'S POWDER, quality warranted, for sale at *Copeland's Ammunition Store*, 65 Broad st, at *retail*. Also SHOT, CAPS, &c. of the *best quality*—cheap for cash. tf

Green House Plants and Flowers.

The subscriber, gardener to J. PRINCE, Esq. at Jamaica Plains, Roxbury, has for sale a large variety of plants, (among them 20 varieties of Camellia Japonica from $4 to $8 each,) also flowers for Bouquets; and in the proper season, a variety of hardy shrubs, plants, and fruit trees; also, a quantity of Box for borders, at reasonable prices. EDWARD SAYER.
Jamaica Plains, Jan. 15, 1830. 4t

Fine Stud Horse For Sale.

A beautiful dark bay stud, half blood of the English draught horse, fifteen and a half hands high, strong and well formed, eight years old the ensuing spring, is offered for sale. He is a sure foal getter, fine figure, kind in any harness, and cannot fail to give satisfaction. His stock has proved excellent, and have sold at $50, at four months old. Apply (post paid) to J. B. RUSSELL, Publisher of the New England Farmer.
eop4t Jan. 15

Hemp Seed.

For sale at the Seed Store connected with the New England Farmer, 52, North Market Street,

A few bushels of prime Hemp Seed, for sowing, growth of 1829, (raised wholly from the celebrated Vergennes seed, which cost $5 per bushel.) It is a small lot of uncommonly fine quality, and farmers who are turning their attention to the culture of this profitable plant, can secure excellent seed, at $3 per bushel, if applied for soon. tf Jan. 15.

Gardener Wanted.

The subscriber wishes to employ a gardener who understands his profession, and can produce satisfactory recommendations; permanent employ and good encouragement will be given. Application may be made at 548, Washington-street, Boston.
Jan. 8. tf THOMAS BREWER.

Seneca Oil.

A few gallons Seneca oil, for sale by
Jan. 8. 4t * JONATHAN P. HALL, JR.
No. 1, Union-street, Boston.

Published every Friday, at $3 per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing, are entitled to a deduction of fifty cents.

☞ No paper will be sent to a distance without payment being made in advance.

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